

OIPE

RAW SEQUENCE LISTING DATE: 04/30/2001
 PATENT APPLICATION: US/09/834,095 TIME: 11:08:02

Input Set : A:\800-026US1 Sequence listing.txt.txt
 Output Set: N:\CRF3\04302001\I834095.raw

ENTERED

4 <110> APPLICANT: Kawaoka, Yoshihiro
 6 <120> TITLE OF INVENTION: VIRUSES COMPRISING MUTANT ION CHANNEL PROTEIN
 8 <130> FILE REFERENCE: 800.026US1
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/834,095
 C--> 10 <141> CURRENT FILING DATE: 2001-04-12
 10 <150> PRIOR APPLICATION NUMBER: US 60/197,209
 11 <151> PRIOR FILING DATE: 2000-04-14
 13 <160> NUMBER OF SEQ ID NOS: 35
 15 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 19
 19 <212> TYPE: DNA
 20 <213> ORGANISM: Artificial Sequence
 22 <220> FEATURE:
 23 <223> OTHER INFORMATION: A primer
 25 <400> SEQUENCE: 1
 26 aagaggggtca cttgaatcg 19
 28 <210> SEQ ID NO: 2
 29 <211> LENGTH: 18
 30 <212> TYPE: DNA
 31 <213> ORGANISM: Artificial Sequence
 33 <220> FEATURE:
 34 <223> OTHER INFORMATION: A primer
 36 <400> SEQUENCE: 2
 37 actgttgctg cgagtatc 18
 39 <210> SEQ ID NO: 3
 40 <211> LENGTH: 18
 41 <212> TYPE: DNA
 42 <213> ORGANISM: Artificial Sequence
 44 <220> FEATURE:
 45 <223> OTHER INFORMATION: A primer
 47 <400> SEQUENCE: 3
 48 gttgttgctc caactatc 18
 50 <210> SEQ ID NO: 4
 51 <211> LENGTH: 18
 52 <212> TYPE: DNA
 53 <213> ORGANISM: Artificial Sequence
 55 <220> FEATURE:
 56 <223> OTHER INFORMATION: A primer
 58 <400> SEQUENCE: 4
 59 gttgttgctg cgaacatc 18
 61 <210> SEQ ID NO: 5
 62 <211> LENGTH: 22
 63 <212> TYPE: DNA
 64 <213> ORGANISM: Artificial Sequence
 66 <220> FEATURE:
 67 <223> OTHER INFORMATION: A primer

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69 <400> SEQUENCE: 5
70 gttgttatca ttgggatctt gc 22
72 <210> SEQ ID NO: 6
73 <211> LENGTH: 18
74 <212> TYPE: DNA
75 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: A primer
80 <400> SEQUENCE: 6
81 cccaatgata ctgcgcgc 18
83 <210> SEQ ID NO: 7
84 <211> LENGTH: 25
85 <212> TYPE: DNA
86 <213> ORGANISM: Artificial Sequence
88 <220> FEATURE:
89 <223> OTHER INFORMATION: A primer
91 <400> SEQUENCE: 7
92 atcttgcaact tgatattggc aattc 25
94 <210> SEQ ID NO: 8
95 <211> LENGTH: 62
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <223> OTHER INFORMATION: A primer
102 <400> SEQUENCE: 8
103 caccagtga aatggcgacag ttgagtagat cgccagaatg tcacttgaat cgttgcatct 60
104 gc 62
106 <210> SEQ ID NO: 9
107 <211> LENGTH: 57
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: A primer
114 <400> SEQUENCE: 9
115 ctttttgtct ccctgggggc aatcagtttc tggatggatc gtcttttttt caaatgc 57
117 <210> SEQ ID NO: 10
118 <211> LENGTH: 68
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: A primer
125 <400> SEQUENCE: 10
126 gcttagtatc aattgtattc catttatgat tgatatccaa atgctgtcac ttgaatcgtt 60
127 gcatctgc 68
129 <210> SEQ ID NO: 11
130 <211> LENGTH: 63
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:

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135 <223> OTHER INFORMATION: A primer
 137 <400> SEQUENCE: 11
 138 attataggag tcgtaatgtg tatctcaggg attaccataa tagatcgtct ttttttcaaa 60
 139 tgc 63
 141 <210> SEQ ID NO: 12
 142 <211> LENGTH: 33
 143 <212> TYPE: DNA
 144 <213> ORGANISM: Artificial Sequence
 146 <220> FEATURE:
 147 <223> OTHER INFORMATION: A sequence from the pHH21 vector
 149 <400> SEQUENCE: 12
 150 gggttattgg agacggtacc gtctcctccc ccc 33
 152 <210> SEQ ID NO: 13
 153 <211> LENGTH: 18
 154 <212> TYPE: DNA
 155 <213> ORGANISM: Artificial Sequence
 157 <220> FEATURE:
 158 <223> OTHER INFORMATION: The end of a PCR product
 160 <221> NAME/KEY: misc_feature
 161 <222> LOCATION: (1)...(18)
 162 <223> OTHER INFORMATION: n = A, T, C or G
 164 <400> SEQUENCE: 13
 OK 165 cgtctcntat tagtagaa 18
 167 <210> SEQ ID NO: 14
 168 <211> LENGTH: 16
 169 <212> TYPE: DNA
 170 <213> ORGANISM: Artificial Sequence
 172 <220> FEATURE:
 173 <223> OTHER INFORMATION: The end of a PCR product
 175 <221> NAME/KEY: misc_feature
 176 <222> LOCATION: (1)...(16)
 177 <223> OTHER INFORMATION: n = A, T, C or G
 OK 179 <400> SEQUENCE: 14
 180 ttttgctccc ngagac 16
 182 <210> SEQ ID NO: 15
 183 <211> LENGTH: 11
 184 <212> TYPE: DNA
 185 <213> ORGANISM: Artificial Sequence
 187 <220> FEATURE:
 188 <223> OTHER INFORMATION: The end of a PCR product following digestion with
 189 BsmBI
 191 <400> SEQUENCE: 15
 192 tattagtaga a 11
 194 <210> SEQ ID NO: 16
 195 <211> LENGTH: 10
 196 <212> TYPE: DNA
 197 <213> ORGANISM: Artificial Sequence
 199 <220> FEATURE:
 200 <223> OTHER INFORMATION: The end of a PCR product following digestion with

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201      BsmBI
203 <400> SEQUENCE: 16
204 gggagcaaaa                                10
206 <210> SEQ ID NO: 17
207 <211> LENGTH: 15
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: A sequence from the pHH21 vector including
213     influenzal viral cDNA that was cloned into the
214     vector
216 <400> SEQUENCE: 17
217 gggttattag tagaa                            15
219 <210> SEQ ID NO: 18
220 <211> LENGTH: 13
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: A sequence from the pHH21 vector including
226     influenzal viral cDNA that was cloned into the
227     vector
229 <400> SEQUENCE: 18
230 ttttgcctccc ccc                            13
232 <210> SEQ ID NO: 19
233 <211> LENGTH: 80
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: A primer
240 <400> SEQUENCE: 19
241 cacaacacgtc tcgtattagt agaaacaagg tcgtttttta actattcgac actaattgat    60
242 ggccatccga attcttttgg                                80
244 <210> SEQ ID NO: 20
245 <211> LENGTH: 67
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: A primer
252 <400> SEQUENCE: 20
253 cacacacgtc tccgggagcg aaagcaggtc aattatattc aatatggaaa gaataaaaga    60
254 actaagg                                                67
256 <210> SEQ ID NO: 21
257 <211> LENGTH: 89
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: A primer
264 <400> SEQUENCE: 21
265 cacacacgtc tcgtattagt agaaacaagg cattttttca tgaaggacaa gctaaattca    60

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266 ctatttttgc cgtctgagct cttcaatgg                      89
268 <210> SEQ ID NO: 22
269 <211> LENGTH: 67
270 <212> TYPE: DNA
271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: A primer
276 <400> SEQUENCE: 22
277 cacacacgtc tccgggagcg aaagcaggca aaccatttga atggatgtca atccgacttt    60
278 acttttcc                                                    67
280 <210> SEQ ID NO: 23
281 <211> LENGTH: 103
282 <212> TYPE: DNA
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: A primer
288 <400> SEQUENCE: 23
289 ccaaccgcgc tcctattagt agaaacaagg tacttttttg gacagtatgg atagcaaata    60
290 gtagcattgc cacaactatc tcaatgcatg tgtgaggaag gag                    103
292 <210> SEQ ID NO: 24
293 <211> LENGTH: 67
294 <212> TYPE: DNA
295 <213> ORGANISM: Artificial Sequence
297 <220> FEATURE:
298 <223> OTHER INFORMATION: A primer
300 <400> SEQUENCE: 24
301 ccaaccgcgc tccgggagcg aaagcaggta ctgattcaaa atggaagatt ttgtgcgaca    60
302 atgcttc                                                    67
304 <210> SEQ ID NO: 25
305 <211> LENGTH: 40
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: A primer
312 <400> SEQUENCE: 25
313 cacacacgtc tcctattagt agaaacaagg gtgtttttcc                    40
315 <210> SEQ ID NO: 26
316 <211> LENGTH: 45
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: A primer
323 <400> SEQUENCE: 26
324 cacacacgtc tccgggagca aaagcagggg aaaataaaaa caacc                45
326 <210> SEQ ID NO: 27
327 <211> LENGTH: 47
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/834,095

DATE: 04/30/2001

TIME: 11:08:03

Input Set : A:\800-026US1 Sequence listing.txt.txt

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13

L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14